

# Fernox

## **Product Specification**

#### Fernox Product Features

#### F1 Protector:

- ✓ Central heating protector for mixed metal heating & cooling systems
- ✓ Renders water non-corrosive to steel, cast iron, copper, brass, and aluminium
- ✓ Prevents limescale build-up
- ✓ Maintains efficiency and extends system life expectancy
- ✓ Prevents bacterial contamination
- ✓ Compatible with all metals and materials commonly used in heating and cooling systems
- ✓ Non-toxic, environmentally friendly

#### F3 Cleaner:

- ✓ Cleaner for heating and cooling systems
- ✓ Pre-commissioning cleanser for new installations
- ✓ Removes sludge and scale and restores efficiency of existing systems
- ✓ Compatible with all metals and materials commonly used in heating and cooling systems
- √ No neutraliser required
- ✓ Suitable for use with all reputable power flushing machines
- √ Non-acidic formula
- ✓ Non-hazardous, environmentally friendly

#### HP-5C Antifreeze/inhibitor:

- ✓ Concentrated heat transfer fluid suitable for use in heating and cooling systems
- ✓ Frost protection from -4°C to -14°C
- ✓ Protects against corrosion, limescale, and bacterial contamination
- ✓ Non-toxic
- ✓ Compatible with all materials commonly found in heating and cooling systems
- √ pH stable

PRODUCT CODE	PART NAME
FXPRO290	Fernox F1 Protector 290ml Cartridge
FXRRO500	Fernox F1 Protector 500ml Bottle
FXPRO10L	Fernox HVAC Commercial Protector 10L
FXCLE290	Fernox F3 Cleaner 290ml Cleaner
FXCLE10L	Fernox HVAC Commercial Cleaner 10L
FXHTF25L	Fernox HP-5c Protector + Antifreeze 25L

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The following procedure shall be followed to ensure a heating or cooling system is correctly cleaned and dosed with corrosion inhibitor (for best results the system shall be completely drainable):

- Ensure the system is completed, pressure tested, leak free, and defect free.
- Calculate and verify the system volume
- Add Fernox F3 (cleaner) at a concentration of 0.5% of the system volume via a dosing pot or other suitable method
- Run the system circulation pumps and heating source and circulate for at least (new installation 1 hour)/(Existing installation 5-7 days and add additional cleaner as necessary for heavily sludged systems).
- Drain the system whilst the water is still warm
- Flush the system with cold water until the water is clear and the Fernox F3 has been rinsed from the system (F3 cleaner will usually be completely removed after 3 complete flushes)
- Check and clean the strainers and filters installed in the system
- Commission the heating system and ensure correct operation. Make any changes required prior to dosing the system with inhibitor.

#### If it is deemed no antifreeze protection is required:

- Dose the system with Fernox F1 (inhibitor) at a concentration of 0.5% of the system volume via a dosing pot or other suitable method.
- To ensure speedy dispersion add Fernox F1 while filling the system. Run the system circulation pumps and heating source for at least 1 hour and test the system treatment dosage is sufficient using the Fernox 'One Drop' Protector Test Kit.
- As per standard procedure check all manual and automatic air vents and ensure the system is free of air.

#### If it is deemed antifreeze protection is required:

- Dose the system with Fernox HP-5C (antifreeze & inhibitor) at a minimum concentration of 10% of the system volume (for frost protection to -4°C) via a dosing pot or other suitable method. To ensure speedy dispersion add Fernox HP-5C while filling the system. (consider pump and flow rate requirements when determining dosage concentration)
- Run the system circulation pumps and heating source for at least 1 hour and test the system treatment dosage is sufficient using the Fernox 'One Drop' Protector Test Kit and the Fernox Refractometer.
- As per standard procedure check all manual and automatic air vents and ensure the system is free of air.

Record system treatment information in the system log book/O&M manual including:

- Date
- Products used
- Quantity used
- Testing results

For continued protection protector and antifreeze levels shall be checked regularly (annually)

Refer to Fernox product specific data sheets for further details.

